CONTROLLED RELEASE ANTIFOULING PAINT ADDITIVE

Microtubules 0.5 micron in diameter and from 10 to 150 microns in length have proven effective for controlled release of biocides in antifouling coatings. These coatings rely on the tubule microstructures to both entrap biocides and to control their release.

Advantages include

- Controlled release of wide range of biologically active materials
- Forms a fiber composite with paint matrix
- Eliminates need for coating to provide leaching agent
- Reduces loadings of toxic material in paint
- Environmentally friendly when used with natural materials or analogs
- Controllable release rates obtainable

The coatings have been tested in quantitative assays and in ocean environment exposure tests and have proven to provide effective control of fouling with natural, nontoxic antifouling compounds. The controlled delivery system offers the ability to vary the biocides formulation to meet various requirements.

Points of Contact
Naval Research Laboratory
4555 Overlook Avenue, SW • Washington, DC 20375-5320

Jane F. Kuhl • Head, Technology Transfer Office • (202) 767- 3083 • kuhl@utopia.nrl.navy.mil
Joel M. Schnur • Head, Center for Bio/Molecular Science and Engineering • (202) 404-6000